

## **Issues in Implementing the new MUTCD 2009**

### **Section 1A.08 Authority for Placement of Traffic Control Devices**

New requirement that devices not having any traffic control purpose shall not be located where they will interfere with, or detract from, traffic control devices.

### **Section 2A.12 Symbols**

A symbol used for a given category of signs (regulatory, warning, or guide) shall not be used for a different category of signs.

### **Section 2B.03 Size of Regulatory Signs**

Increased sign sizes of some regulatory signs in Table 2B-1.

The Conventional Road size for the R1-2aP, R1-5, R1-5a, R10-5, R10-8, R10-10, R10-11a, R10-11b, R10-12, R10-13, R10-17a, R10-18, and R13-1 signs and plaques has been increased.

The Expressway size for the R13-1 sign has been increased.

An Expressway size has been added for the R1-2aP plaque and the R10-5 sign.

The Freeway size for the R6-2 and R13-1 signs has been increased.

A Freeway size has been added for the R1-2aP plaque and the R8-7 sign.

The Minimum size for the R1-1 sign has been increased.

A Minimum size has been added for the R2-1, R4-3, R5-1a, R5-3, R5-6, and R10-5 signs and the R1-2aP plaque.

A new Oversized size has been added for the R1-5, R1-5a, R2-1, R2-4a, R3-8, R3-8a, R3-8b, R4-1, R4-2, R4-3, R4-5, R4-7, R4-7a, R4-7b, R4-8, R5-1, R5-1a, R5-7, R5-8, R6-1, R6-2, R6-3, R6-3a, R8-1, R8-2, R8-3, R8-3a, R8-4, R8-5, R8-6, R8-7, R9-3, R9-4, R10-6, R10-6a, and R10-18 signs and the R1-3P, R2-2P, R2-3P, R2-4P, R2-6P, and R10-19aP plaques.

### **Section 2B.05 STOP Sign (R1-1) and ALL WAY Plaque (R1-3P)**

New prohibition on the use of 2-WAY, 3-WAY, 4-WAY plaques with STOP signs.

### **Section 2B.40 ONE WAY Signs (R6-1, R6-2)**

New requirements for the number and location of ONE WAY signs. See Figures 2B-14 through 2B-17. We were previously “grand-fathered” for deviating from the National MUTCD but the “grand-fathered” clause doesn’t apply to new requirements. In June CTCDC workshop, the recommendation was to adopt MUTCD requirements since they included more signs as compared to California practice.

### **Section 2B.42 Divided Highway Crossing Signs (R6-3, R6-3a)**

New requirement for the use of Divided Highway Crossing (R6-3 or R6-3a) sign on unsignalized minor-street approaches onto a divided highway that has a median width of 30 feet or more.

#### **Section 2C.04 Size of Warning Signs**

New requirement of minimum 36 x 36 inches sign size for all diamond-shaped warning signs on a multi-lane conventional road where the posted speed limit is higher than 35 mph.

Increased sign sizes of some warning signs in Table 2C-2.

New sign sizes for the “Multi-Lane” column in Table 2C-2.

The Conventional Road size has been increased for the W1-13, W8-4, W8-6, W8-7, W8-8, W8-9, W8-12, W8-13, W9-1, and W9-2 signs.

The Expressway size has been increased for the W8-4 sign. The Expressway size has been added for the W1-6 sign.

The Freeway size has been added for the W1-6 sign.

The Minimum size has been increased for the W9-1 and W9-2 signs.

The Oversized size has been added for the W1-1, W1-1a, W1-2, W1-2a, W1-3, W1-4, W1-5, W1-8, W1-11, W1-13, W1-15, W2 series, W7-1, W7-1a, W7-6, W8-1, W8-2, W8-4, W8-5, W8-6, W8-7, W8-8, W8-9, W8-13, W9-1, W9-2, W11 series, W14-1, W14-2, W15-1, and W17-1 signs.

#### **Section 2C.06 Horizontal Alignment Warning Signs**

In advance of horizontal curves on freeways, on expressways, and on roadways with more than 1,000 AADT that are functionally classified as arterials or collectors, horizontal alignment warning signs shall be used in accordance with Table 2C-5 based on the speed differential between the roadway’s posted or statutory speed limit or 85th-percentile speed, whichever is higher, or the prevailing speed on the approach to the curve, and the horizontal curve’s advisory speed.

Following signs are required for speed differential of 10 mph or more:

- Turn (W1-1),
- Curve (W1-2),
- Reverse Turn (W1-3),
- Reverse Curve (W1-4),
- Winding Road (W1-5), and
- Combination Horizontal Alignment/Intersection (W10-1)
- Advisory Speed Plaque (W13-1P)

Following signs are required for speed differential of 15 mph or more:

- Chevrons (W1-8) and/or
- One Direction Large Arrow (W1-6)

Following signs are required for speed differential of 20 mph or more:

- Exit Speed (W13-2) and
- Ramp Speed (W13-3) on exit ramp

#### **Section 2D.45 Signing on Conventional Roads on Approaches to Interchanges**

New requirement for multi-lane approaches to interchanges to have guide signs to identify which direction of turn is to be made for access to each direction of the freeway or expressway. See Figures 2D-11 through 2D-16.

### **Section 2E.19 Arrows for Interchange Guide Signs**

New requirements for Directional arrows on guide signs for multi-lane exits to be positioned below the legend approximately over the center of each lane to which the arrow applies.

New requirement for Down arrows on overhead signs to be positioned approximately over the center of each lane and point vertically downward toward the approximate center of that lane.

### **Section 2E.20 Signing for Option Lanes at Splits and Multi-Lane Exits**

### **Section 2E.21 Design of Overhead Arrow-per-Lane Guide Signs for Option Lanes**

### **Section 2E.22 Design of Freeway and Expressway Diagrammatic Guide Signs for Option Lanes**

New requirement for Overhead Arrow-per-Lane or Diagrammatic guide signs on freeways and expressways, to be used for all multi-lane exits at major interchanges that have an optional exit lane that also carries the through route and for all splits that include an option lane.

New requirement for Overhead Arrow-per-Lane guide signs to be used on all new or reconstructed freeways and expressways.

Detailed design requirements for Overhead Arrow-per-Lane guide signs used on freeways and expressways to include one arrow above each lane and to be designed in accordance specific criteria.

### **Section 2E.31 Interchange Exit Numbering**

### **Section 2E.33 Advance Guide Signs**

### **Section 2E.36 Exit Direction Signs**

New requirement in the 2009 MUTCD to use E1-5aP and E1-5bP plaques for left-hand exits

### **Section 2G.01 Scope**

### **Section 2G.02 Sizes of Preferential and Managed Lane Signs**

### **Section 2G.03 Regulatory Signs for Preferential Lanes – General**

### **Section 2G.04 Preferential Lane Vehicle Occupancy Definition Regulatory Signs (R3-10 Series and R3-13 Series)**

### **Section 2G.05 Preferential Lane Periods of Operation Regulatory Signs (R3-11 Series and R3-14 Series)**

### **Section 2G.06 Preferential Lane Advance Regulatory Signs (R3-12, R3-12e, R3-12f, R3-15, R3-15a, and R3-15d)**

### **Section 2G.07 Preferential Lane Ends Regulatory Signs (R3-12a, R3-12b, R3-12c, R3-12d, R3-12g, R3-12h, R3-15b, R3-15c, and R3-15e)**

Requirements for regulatory signs for preferential lanes.

### **Section 3B.04 White Lane Line Pavement Markings and Warrants**

### **Section 3B.05 Other White Longitudinal Pavement Markings**

New requirement for dotted lane lines for dropped lanes and for acceleration, deceleration, and auxiliary lanes. Required when resurfacing occurs.

**Section 4E.06 Pedestrian Intervals and Signal Phases**

New requirement that the pedestrian change interval shall not extend into the red clearance interval and shall be followed by a buffer interval of at least 3 seconds. Required when timing adjustments are made to the individual intersection and/or corridor, whichever occurs first.

**Section 7B.07 Sign Color for School Warning Signs**

New requirement for fluorescent yellow-green background on warning signs and supplemental plaques regarding conditions associated with school buses and schools.

**Section 8B.04 Crossbuck Assemblies with YIELD or STOP Signs at Passive Grade Crossings**

New requirement in the 2009 MUTCD for the use of STOP or YIELD signs with Crossbuck signs at passive grade crossings.

**Section 8B.28 Stop and Yield Lines**

New requirement for a stop line marking at grade crossings equipped with active control devices.

**Section 8C.03 Flashing-Light Signals at Highway-LRT Grade Crossings**

**Section 8C.10 Traffic Control Signals at or Near Highway-LRT Grade Crossings**

New requirement for the use of an audible device such as a bell to be operated in conjunction with flashing-light signals.

**Section 8C.12 Grade Crossings Within or In Close Proximity to Circular Intersections**

New requirement in the 2009 MUTCD for study of grade crossings within 200 ft of roundabouts.

**Section 8D.03 Pathway Grade Crossing Signs and Markings**

New requirements for mounting height, lateral offset and minimum sign size requirements for pathway grade crossings.

**Section 9B.01 Application and Placement of Signs**

New requirements for vertical clearance and mounting height of signs on shared-use paths.